

Listing and Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended): A gas discharge lamp with

- a discharge vessel-(2);
- electrodes-(4, 5) projecting into the discharge vessel-(2); and
- a translucent, electrically conductive screening-(9, 23) which screens the discharge vessel (2) and comprises connection means-(10, 11, 24, 27, 28) for providing an at least high-frequency connection between the screening-(9, 23) and a screening-(14, 17, 19) of an electrical system used for operating the gas discharge lamp-(1) so as to form a coaxial screening system enclosing the discharge vessel-(2) with the electrodes-(4, 5) during operation of the gas discharge lamp-(1); and

- a conductor track, situated along a surface of the gas discharge lamp screening that encloses the discharge vessel, having a lower ohmic resistance than portions of the gas discharge lamp screening that is employed to enhance the conductivity of the gas discharge lamp screening.

2. (currently amended): ~~A-~~The gas discharge lamp as claimed in claim 1, ~~characterized in that~~wherein the gas discharge lamp-(1) comprises an outer bulb-(8) surrounding the discharge vessel-(2), and the screening-(9) comprises a layer of conductive translucent material or a grid structure of conductive material arranged in or on a wall of the outer bulb (8).

3. (currently amended): ~~A-The~~ gas discharge lamp as claimed in claim 1, ~~characterized in that~~wherein the screening-(9) has an at least high-frequency connection to the screening (14, 17, 19) of the electrical system used for operating the gas discharge lamp-(1) in two mutually opposed locations of the gas discharge lamp-(1) during operation thereof.

4. (currently amended): ~~A-The~~ gas discharge lamp as claimed in claim 1, ~~characterized in that~~wherein at least one of the electrodes-(5) is electrically connected to a supply line-(13) comprising a screening-(14), and the screening-(9) of the gas discharge lamp-(1) is connected with electrical conduction to the screening-(14) of said supply line-(13).

5. (currently amended): ~~A-The~~ gas discharge lamp as claimed in claim 1, ~~characterized by~~wherein a supply line-(25, 26) extending inside the screening-(9) of the gas discharge lamp-(1) and connected to one of the electrodes-(5).

6. (currently amended): ~~A-The~~ gas discharge lamp as claimed in claim 1, ~~characterized in that~~wherein the screening-(9, 23) of the gas discharge lamp-(1) is connected with electrical conduction to a screening-(17) of a lampholder during operation of the gas discharge lamp (1).

7. (currently amended): A gas discharge lamp as ~~claimed in claim 1, characterized in that~~
comprising:

- a discharge vessel;
- electrodes projecting into the discharge vessel;
- a translucent, electrically conductive screening which screens the discharge vessel and comprises connection means for providing an at least high-frequency connection between the screening and a screening of an electrical system used for operating the gas discharge lamp so as to form a coaxial screening system enclosing the discharge vessel with the electrodes during operation of the gas discharge lamp,
- wherein the screening of the gas discharge lamp serves as a power supply line and is electrically connected to one of the electrodes.

8. (currently amended): ~~A-~~The gas discharge lamp as claimed in claim 7, ~~characterized in that~~wherein the electrode-(5) is connected to a supply line-(30) which is arranged in parallel to the screening-(9) of the gas discharge lamp-(1).

9. (currently amended): ~~A-~~The gas discharge lamp as claimed in claim 8, ~~characterized by~~wherein an inductive element-(31) included in the additional return line-(30).

10. (currently amended): ~~A-~~The gas discharge lamp as claimed in claim 7, ~~characterized in that~~wherein the screening-(9) of the gas discharge lamp-(1) is coupled to a screening-(17) of a lampholder via a capacitive component-(28) during operation of the gas discharge lamp-(1).

11. (currently amended): ~~A~~The gas discharge lamp as claimed in claim 7, ~~characterized in that wherein~~ the screening-(9) of the gas discharge lamp-(1) is connected to the other electrode-(4) via a capacitive component-(29).

12. (currently amended): A headlight or luminaire with a gas discharge lamp-(1) as claimed in claim 1 and with an electrical system for operating the gas discharge lamp-(1), which system has a screening-(14, 17, 19), wherein the screening-(9, 23) of the gas discharge lamp-(1) is connected to the screening-(14, 17, 19) of the electrical system at least as regards high frequencies so as to form a coaxial screening system enclosing the discharge vessel-(2) and its electrodes-(4, 5).

13. (new): A gas discharge lamp with
a discharge vessel,
electrodes projecting into the discharge vessel,
a translucent, electrically conductive screening which screens the discharge vessel and comprises connection means for providing an at least high-frequency connection between the screening and a screening of an electrical system used for operating the gas discharge lamp so as to form a coaxial screening system enclosing the discharge vessel with the electrodes during operation of the gas discharge lamp,

wherein at least one of the electrodes is electrically connected to a supply line comprising a screening within a coaxial cable, and the screening of the gas discharge lamp is connected with electrical conduction to the screening of said supply line.

14. (new): A gas discharge lamp comprising:

a discharge vessel,

electrodes projecting into the discharge vessel,

a translucent, electrically conductive screening which screens the discharge vessel and comprises connection means for providing an at least high-frequency connection between the screening and a screening of an electrical system used for operating the gas discharge lamp so as to form a coaxial screening system enclosing the discharge vessel with the electrodes during operation of the gas discharge lamp;

wherein at least one of the electrodes is connected to a supply line arranged in parallel to the screening of the gas discharge lamp; and

wherein an inductive element is included in the additional return line.

15. (new): A gas discharge lamp comprising:

a discharge vessel,

electrodes projecting into the discharge vessel,

a translucent, electrically conductive screening which screens the discharge vessel and comprises connection means for providing an at least high-frequency connection between the screening and a screening of an electrical system used for operating the gas

discharge lamp, so as to form a coaxial screening system enclosing the discharge vessel with the electrodes during operation of the gas discharge lamp;

wherein the screening of the gas discharge lamp serves as a supply line and is electrically connected to one of the electrodes, and

wherein the screening of the gas discharge lamp is coupled to a screening of a lampholder via a capacitive component during operation of the gas discharge lamp.

16. (new): A gas discharge lamp comprising:

a discharge vessel,

electrodes projecting into the discharge vessel,

a translucent, electrically conductive screening which screens the discharge vessel and comprises connection means for providing an at least high-frequency connection between the screening and a screening of an electrical system used for operating the gas discharge lamp, so as to form a coaxial screening system enclosing the discharge vessel with the electrodes during operation of the gas discharge lamp,

wherein the screening of the gas discharge lamp serves as a supply line and is electrically connected to one of the electrodes, and

wherein the screening of the gas discharge lamp is connected to another one of the electrodes via a capacitive component.